Project Operating Plan for Savannah River Site D&D P & R Areas Recovery Act Project Recovery Act Project

BACKGROUND

Recovery Act Project:	Savannah River Site D&D P & R Areas Recovery Act Project Recovery Act Project
TAFS:	89-09/10-0253
Project Identification Code:	2002150
Recovery Act Bill Reference:	PL 111-5, Title IV – Energy and Water Development, Defense Environmental Cleanup (H.R. 1-26)
Project Cost:	$417,715,000
Budget Authority:	06049, FD.05.11.00.0
Program Office:	Environmental Management (EM)
Recovery Program Plan:	EM - Defense
Management Office:	Jack Craig, Acting Manager, Savannah River Operations Office, jack.craig@emcbc.doe.gov, 803-952-6337 Rodrigo V. Rimando, Jr. SR Recovery Act Program Federal Project Director, Savannah River Operations Office, rodrigo.rimando@srs.gov, 803-952-8647

LEADS

Implementation:	Savannah River Site (SRS)
Breakthrough:	N/A
Laboratory:	N/A

I SUMMARY & OBJECTIVES

Introduction

This Recovery Act Project is a portfolio of programs, projects and activities that comprise, in part, the Savannah River Recovery Act Program (SRRAP) at the Savannah River Site in Aiken, South Carolina. Including this Recovery Act Project, the SRRAP is composed of five Recovery Act Projects that represent a total investment of $1,615,400,000. The other four are: (1) SRS D&D, Soil & Groundwater Activities Site-Wide Recovery Act Project, Identification Code 2002152; (2) SRS D&D M & D Areas Recovery Act Project, Identification Code 2002151; (3) SRS TRU & Solid Waste Recovery Act Project, Identification Code 2002153; and (4) SRS Liquid Waste Tank Infrastructure Recovery Act Project, Identification Code 2002290.

SRS Overview

The SRS was constructed during the early 1950s to produce the basic materials used in the fabrication of nuclear weapons in support of our nation's defense programs. Production has since stopped, but SRS remains a key DOE industrial complex dedicated to the safe stabilization, treatment, and disposition of legacy nuclear materials, spent nuclear fuel, and radioactive waste. Also, a major focus is the cleanup of legacy materials, facilities, and waste sites left from the Cold War.

Office of Environmental Management is the Lead Program Secretarial Office (LPSO), and has landlord responsibility for the SRS with specific responsibilities that include site-wide integration and planning, and implementation of EM mission activities in the areas of radioactive solid and liquid waste disposition, nuclear materials stabilization and disposition, environmental remediation, non-nuclear facility demolition and removal, and nuclear facility decommissioning.

The SRS is government-owned and contractor-operated (GOCO). As such, the DOE enters into management and operating (M&O) contracts as well as goods and services contracts to execute and deliver mission objectives.

The DOE derives its authority for the development and the regulation of the uses of nuclear materials and facilities in the United States from the *Atomic Energy Act of 1946*, Public Law (P.L.) 79-585, as amended by the *Atomic Energy Act Amendments of 1954*, P.L. 83-703, and from the *Energy Reorganization Act of 1974*, P.L. 93-438.

On November 21, 1989, the SRS (Comprehensive Environmental Response, Compensation, and Liability Information System Identification Number SC1890008989) was included on the National Priorities List (48184 - 48189 *Federal Register* / Vol. 54, No. 223), which is Appendix B of the *National Oil and Hazardous Substances Pollution Contingency Plan*, making the entire SRS subject to provisions and requirements of CERCLA. As such, DOE's environmental remediation and hazardous waste management activities at SRS are governed by:

- *Comprehensive Environmental Response, Compensation and Liability Act of 1980* (CERCLA), P.L. 96-510,, as amended by the Superfund Amendments and Reauthorization Act of 1986 (SARA), P.L. 99-499;
- *Resource Conservation and Recovery Act of 1976* (RCRA), P.L. 94-580, as amended by *Hazardous and Solid Wastes Amendments of 1984*, P.L. 98-616; and
- *National Environmental Policy Act of 1969* (NEPA), P.L. 91-190, as amended by P.L. 94-52, July 3, 1975, P.L. 94-83, August 9, 1975, and P.L. 97-258, § 4(b), Sept. 13, 1982).

In accordance with Section 120(e) of CERCLA, the DOE entered into interagency agreements (IAG) with the United States Environmental Protection Agency (USEPA) and South Carolina Department of Health and Environmental Control (SCDHEC) for the expeditious completion of remedial action at the facility.

Basis for SRS Recovery Act Projects

Office of Environmental Management identified several opportunities to significantly reduce its cleanup program lifecycle costs by making upfront investments on its core mission activities as described in *Report to Congress: Status of Environmental Management Initiatives to Accelerate the Reduction of Environmental Risks and Challenges Posed by the Legacy of the Cold War* (January 2009). These upfront investments include:

- Near-Term Completion – Accelerating the completion of mission activities at EM's smaller sites and at DOE's national laboratories thereby reducing EM's remaining work to the larger sites;
- Footprint Reduction – Accelerating the completion of environmental (soil and groundwater) remediation and facility deactivation and decommissioning at the larger sites thereby reducing EM's remaining work to the areas of the site where long-term mission activities still need to be completed; and
- Solid Radioactive Waste Disposal – Accelerating the disposal of transuranic waste and low-level radioactive waste in an effort to maximize the use of readily available disposal facilities and capabilities.

In executing the SRRAP, EM implements the project management requirements of DOE Order 413.3A, *Program and Project Management for the Acquisition of Capital Assets*, and Office of Management and Budget (OMB) Circular No. A–11, Part 7, *Planning, Budgeting, Acquisition, and Management of Capital Assets*. Due to the unique nature under which these projects are funded and the Congressional mandate to immediately execute "shovel ready" projects, DOE requirements are implemented in a manner that allows for the immediate retention and hiring of workers. This tailored approach continues to maintain the utility and value of Federal leadership and accountability by assignment of Federal Project Directors who are supported by Integrated Project Teams; clear technical scope definition; positive configuration control over credible performance baselines; smart risk management and uncertainty awareness; and sound project controls, including earned value management. Incorporating safety early into design and through execution remains a key feature of the project management approach.

This Recovery Act Project implements the programmatic requirements in *EM RECOVERY ACT PROGRAM: Portfolio Management Framework*, (RAPD-EM-09004), Revision 0, July 10, 2009. Portfolio Management Framework describes a new framework for managing EM's portfolio of PPAs that differentiates capital asset projects from non-capital asset activities and programs.

In EM's Integrated Planning, Accountability, and Budgeting System, this Recovery Act Project is decomposed to five separate reporting elements:

1. SR-0030.R1.1, P-Area & R-Area Completion General Plant Projects (GPP) & Operations;

2. SR-0030.R1.2, P-Reactor Decommissioning Project;
3. SR-0030.R1.3, P-Area Ash Basin Remedial Action Project;
4. SR-0030.R1.4, R-Reactor Decommissioning Project; and
5. SR-0030.R1.5, R-Area Ash Basin Remedial Action Project

Statement of Work

This Recovery Act Project includes capital asset projects, general plant projects, environmental management operational activities, and landlord (LPSO) program activities under the programmatic responsibility of EM. This Recovery Act Project focuses on accelerating the completion of EM mission activities in key industrial areas of the SRS (area completion) such that these areas and their surrounding land property and resources are made available for potential beneficial reuse.

The following is a list of the scope divided among the IPABS reporting elements.

SR-0030.R1.1, P-Area & R-Area Completion GPP & Operations

- Remediation of P-Area Cask Car railroad tracks and impacted soils
- Remediation of P-Area PSA-3A vadose zone (unsaturated subsurface soils)
- Remediation of P-Area PSA-3B vadose zone
- Remediation of P-Area Process Sewer Lines and impacted soils
- Remediation of P-Area P007 outfall soils
- Characterization of P-Area Operable Unit (PAOU) groundwater
- Post-remediation site restoration of PAOU
- Deactivation of P Reactor
- Post-remediation operations and maintenance of PAOU
- Environmental monitoring of PAOU
- Project, regulatory and administrative closeout of Recovery Act-funded work at PAOU
- Transition/Closeout of PAOU
- Remediation of R-Area Cask Car railroad tracks and impacted soils
- Remediation of soils in an area north of the 105-R reactor building
- Remediation of R-Area Process Sewer Lines and impacted soils
- Remediation of RAOU Groundwater
- Post-remediation site restoration of R-Area Operable Unit (RAOU)

- Deactivation of R Reactor
- Post-remediation operations and maintenance of RAOU
- Environmental monitoring of RAOU
- Project, regulatory and administrative closeout of Recovery Act-funded work at RAOU
- Closeout/transition of RAOU
- Characterization of Lower Three Runs Stream
- CERCLA Regulatory Documentation
- Removal of surplus reactor moderator
- Preparation of C Area Regulatory Documents

SR-0030.R1.2, P-Reactor Decommissioning Project

- Decommission P-Reactor Building – The end state is in situ decommissioning, which involves: grouting the reactor building at -20 foot level and -40 foot level below grade; removing the stack +145 foot level to +55 foot level; grouting the reactor vessel; installing a concrete cover over the reactor vessel; grouting the disassembly basin; demolishing and removing the disassembly basin structure; installing a concrete cover over disassembly basin; modifying the roof drainage at levels listed in the design element; and sealing the reactor building. This project includes operation and support of the Grout Plant located at the PAOU. The closed facility will undergo long-term post closure care, maintenance, and monitoring. This project is a CERCLA response action. KPP-1 Achieve Human Health and Environmental Protectiveness; Implementing regulatory remedy will result in CERCLA risk range of $1 \times 10^{-4} - 1 \times 10^{-6}$ for the industrial worker scenario. KPP-2, Achieve mechanical completion; construction activities are complete. Post-construction walk-down inspection is complete, including punch-list closeout. Regulatory acceptance is documented.

SR-0030.R1.3, P-Area Ash Basin Remedial Action Project

- Remediate P-Area Ash Basin – The end state is *in situ* closure, which involves leaving residual ash material in place, filling the basin with clean backfill material, and placing a cover over the basin footprint. This project is a CERCLA response action. KPP-1, Achieve human health and environmental protectiveness: implementing regulatory remedy will result in CERCLA risk range of 1×10^{-4} to 1×10^{-6} for the industrial worker scenario. KPP-2, achieve mechanical completion: construction activities are complete. Post construction walk-down inspection is complete, including punch-list closeout. Regulatory acceptance is documented.
- Long-term, post-closure care, maintenance and monitoring

SR-0030.R1.3, R-Reactor Decommissioning Project

- Decommission R-Reactor Building – The end state is *in situ* decommissioning, which involves: grouting the reactor building at -20 foot level and -40 foot level below grade; removing the stack +145 foot level to +55 foot level; grouting the reactor vessel; installing a concrete cover over the reactor vessel; grouting the disassembly basin; demolishing and removing the disassembly basin structure; installing a concrete cover over disassembly basin; modifying the roof drainage at levels listed in the design element; and sealing the reactor building. The closed facility will undergo long-term post closure care, maintenance, and monitoring. This project is a CERCLA response action. KPP-1 Achieve Human Health and Environmental Protectiveness; Implementing regulatory remedy will result in CERCLA risk range of $1 \times 10^{-4} - 1 \times 10^{-6}$ for the industrial worker scenario. KPP-2, Achieve mechanical completion; construction activities are complete. Post-construction walk-down inspection is complete, including punch-list closeout. Regulatory acceptance is documented.
- Operation and support of the Grout Plant located at the PAOU
- Long-term post closure care, maintenance, and monitoring

SR-0030.R1.4 R-Area Ash Basin Remedial Action Project

- Remediate R-Area Ash Basin – The end state is *in situ* closure, which involves leaving residual ash material in place, filling the basin with clean backfill material, and placing a cover over the basin footprint. This project is a CERCLA response action. KPP-1, Achieve human health and environmental protectiveness: implementing regulatory remedy will result in CERCLA risk range of 1×10^{-4} to 1×10^{-6} for the industrial worker scenario. KPP-2, achieve mechanical completion: construction activities are complete. Post construction walk-down inspection is complete, including punch-list closeout. Regulatory acceptance is documented.
- Long-term, post-closure care, maintenance and monitoring

Changes during Final Scope Definitization

Additions

- Characterization and remediation of the C-Reactor Area Discharge Canal
- Characterization and remediation of C Reactor Groundwater
- Characterization and remediation of C Area Operable Unit Waste Units
  - 108-3C, Fueling and Unloading Power Facilities
  - 717-C, Contaminated Maintenance Facility
  - 904-89G, Retention Basin for the 100-C Containment Basin

  - C-Area Process Sewer Lines
  - C-Area Reactor Cask Car Railroad Tracks, as abandoned
  - ECODS C-1
  - Potential release from the C-Reactor Disassembly Basin
  - Potential release form the C-Area Reactor Cooling Water System (186/190-C)
- Demolition and removal of the PAR (P Area and R Area) Pond facilities

Potential New Work

Based on the potential availability of funds from unused management reserve and contingency funds and from cost efficiencies in executing the planned projects, the following additional candidate projects have been identified should funding become available.

In the event additional Recovery Act funding becomes available, the EM mission activities listed below in other SRS reactor areas or of other legacy reactor materials and waste will be evaluated for inclusion in this Recovery Act Project.

Other items that may be considered for inclusion into this Recovery Act Project include:

- Disposition 49 each surplus reactor heat exchangers in N Area
- Disposition of surplus reactor moderator (heavy water) in 1,900 each 55-gallon drums and 58,000 gallons in three tanks at the former K Area Reactor Complex
- Disposal of surplus reactor moderator in 4,868 each 55-gallon drums and 49,370 gallons in two tanks at the former L Area Reactor Complex
- Disposal of 42,539 gallons surplus reactor moderator in two tanks at the former C Area Reactor Complex
- Removal of 5 million gallons of water in the C-Reactor Disassembly Basin
- Remediation of Lower Three Runs
- Characterization of the L-Area Ash Basin
- Characterization of the K-Area Ash Basin
- Remediation of the L-Area Ash Basin
- Remediation of the K-Area Ash Basin
- Deactivation and decommissioning and removal of the K Area Powerhouse and excess K Area facilities, including isolation and interface activities to prepare the facilities for D&D

- Redirect K-02 in the former K Area Reactor Complex outfall to preclude discharge to surface waters
- Remediation of P Area Groundwater

II OBJECTIVES

Recovery Act Objectives

The planning, execution and closeout of this Recovery Act Project will contribute to the SRRAP goal of saving and creating a total of 3,000 jobs. Hiring preference is given to the Central Savannah River Area and SC counties adjacent to SRS, including Barnwell County, Allendale County, and Orangeburg County. The nature of the work of this Recovery Act Project allow for the hiring of a wide range of skills and trades.

Programmatic Objectives

Accelerating the completion of EM mission activities of this Recovery Act Project will contribute to EM's programmatic initiatives of footprint reduction and accelerated solid radioactive waste disposal. Specifically, the scope of the validated performance baseline contributes to the overall reduction of EM's programmatic operational footprint by greater than 40%. Because much of the work scope is accelerated from the out-years, the solid radioactive waste generated will also be accelerated.

The acceleration of this work will also reduce the overall lifecycle cost and environmental liability. As such, a financial return on investment is expected, and will be assessed upon completion of this Recovery Act Project.

This Recovery Act Projects ties to the DOE and EM Strategic Goals and Themes listed below.

- DOE Strategic Goal 4 –Environmental Responsibility – Protecting the environment by providing a responsible resolution to the environmental legacy of nuclear weapons production.
- DOE Strategic Goal 5 – Management and Excellence – Enabling the Department's mission through sound management and business practices.
- EM Goals – To safely disposition large volumes of nuclear waste; safeguard materials that could be used in nuclear weapons; deactivate and decommission thousands of contaminated facilities no longer needed by the Department to carry on its current mission; EM is fulfilling its commitments to reduce overall risk and complete cleanup across all sites for generations to come.

Regulatory and Statutory Objectives

The SRRAP meets the requirements of the IAG with USEPA and SCDHEC and the RCRA Permit.

Public Benefits

Hundreds of on-site jobs will be created and/or retained by implementing this Recovery Act Project, bolstering the local economy. Major types of workers required for this work include construction labor, engineer, heavy equipment operator, field technician, truck driver, and administrative support worker. The large number of workers trained by completing this project will be available for future missions, including the energy park initiative planned for the SRS. Personnel hired for this initiative could also provide a key source of employees to accomplish other the EM mission activities as the current aging workforce retires and as workers leave for other work offered in the expanding nuclear industry being experienced in the southeastern region of the US. Surrounding area businesses will also experience a job creation benefit from this work scope initiative. Additional off-site jobs will likely be created in the surrounding communities.

This Recovery Act Project fulfills the Government's responsibility to address nuclear weapons waste, allows earlier completion of legal compliance agreement milestones, and enables reuse of DOE assets and resources, including land and infrastructure, for other energy missions or community reuse through long-term leases. Moreover, areas of SRS can be used to establish Energy Parks after EM has completed its legacy cleanup, providing long-term quality jobs for the Recovery Project workforce.

Recovery Act Project Impacts

This Recovery Act Project makes significant progress towards completing the EM cleanup mission at SRS. By strategically completing environmental remediation and facility dispositioning at the major industrial areas, EM is able to collapse its operating footprint to the central portion of SRS. The assets and environmental resources made available by EM's footprint reduction, may serve some other beneficial reuse.

The accelerated completion of cleanup, allows EM to utilize and focus resources on the more problematic mission activities, including the stabilization and disposition of high level waste, final closure of the high level waste tanks, the stabilization and disposition of nuclear materials, and deactivation and decommissioning of the radiochemical processing facilities.

The acceleration of this work will also reduce the overall lifecycle cost and environmental liability. As such, a financial return on investment is expected, and will be assessed upon completion of this Recovery Act Project.

Investment in this Recovery Act Project will accelerate decommissioning of nuclear facilities and contaminated areas in P and R Areas of SRS, including DOE's first ever final decommissioning of two nuclear materials production reactors. The area will be in post-closure monitoring after the completion of this work. Remediation will also include excavation and covering of the metals-contaminated soil from the P and R Area ash basins. After completion of the decommissioning activities, no further action is required. The final remedial treatment systems will be installed for the 55-acre groundwater plume at RAOU. This project will create and/or retain many new jobs for the skilled workforce currently available in the surrounding area to execute this project. In addition, the EM footprint at the 310 square-mile SRS will be reduced by approximately 25%, enabling reuse of EM infrastructure for other energy missions or community reuse, and reducing life-cycle costs

III COST & SCHEDULE

Budget

Table 1 Budget Implementation Monthly & Yearly Obligations (Actual Costs for April 2009 through May 2010 and Projected Costs for June 2010 thru FY2012 in $M)

The Project funding is subject to re-apportionment and will be finalized by 9/30/2010; the Project Operating Plan will then be reissued with an obligations table.

Table 2. Budget Implementation Monthly & Yearly Expenditures (Actual Costs for April 2009 through May 2010 and Projected Costs for June 2010 through FY2012 in $M)

The Project funding is subject to re-apportionment and will be finalized by 9/30/2010; the Project Operating Plan will then be reissued with a costs table.

Table 3. Funds Returned and Offsetting Collections ($M)

Provide description and amounts for Funds Returned and Offsetting Collections	FY 09	FY 10	FY 11	FY 12	FY 13	FY 14	FY 15
	NA						

Indirect Costs

This work will be performed by an existing Management and Operating (M&O) contractor using an approved indirect rate structure. The estimated percent of Recovery Act Project indirect costs is approximately 28.45% for fiscal year 2010, 49.28% for fiscal year 2011, and 67.82% for fiscal year 2012

In accordance with the general principles of the Recovery Act, DOE Savannah River Site will take the following steps to minimize the impacts of indirect costs and enhance transparency and accountability of project:

- Clearly identify the estimated full cost of projects to include total direct and indirect costs, indirect costs rates, and adjust existing indirect cost rate to account for the material infusion of funds provided in the Recovery Act;
- Ensure all funds transferred to contractors/subcontractors are completed using the Approved Funding Program process described in Chapter 12 of the Accounting Handbook; and
- Future reporting requirements include monthly reports on actual indirect cost rate.

Changes to Baseline Budget

Table 4. Changes to Baseline Budgets ($M)

Changes to Baseline Budget	Increase/ Decrease	FY 09	FY 10	FY 11	FY 12	FY 13	FY 14	FY 15
NA								

Milestones (Recovery Act Baselines)

Table 5a. Milestones for SR-0030.R1.1, P and R Area GPP and Operations

Date	Title/Description
4/26/2010	Complete R Area Cask Car Railroad Track Remediation
9/8/2010	Complete P Area Disassembly Basin Water Evaporation
8/19/2010	Complete R Area Groundwater Construction
9/7/2010	Issue Record of Decision for PAOU
11/10/2010	Construction Complete PSA-3A Injection
3/10/2011	Complete RAOU Process Sewer Lines Remediation
4/26/2011	Complete Cap Installation North of 105R
4/21/2011	Complete PAOU Process Sewer Lines Remediation
9/30/2011	Mechanical Completion of the D&D of PAR Pond Facilities
9/30/2012	Mechanical Completion of 7 CAOU Waste Units Remediation
9/30/2012	Mechanical Completion of C Discharge Canal Remediation
9/30/2012	Mechanical Completion of C Groundwater Remediation System

Table 5b. Milestones for SR-0030R1.2, P Reactor Decommissioning Project

Date	Title/Description
12/24/2009	CD 2/3 Approval
4/25/2011	Complete disassembly basin grouting for 105-P
5/9/2011	Complete in situ decommissioning grouting and stack removal for 105-P
8/29/2011	Complete sealing building and modify roofs for 105-P
11/11/2011	Complete installation of disassembly basin cap for 105-P
12/10/2011	Achieve mechanical completion for 105-P
1/31/2012	Approve CD-4

Table 5c. Milestones for SR-0030.R1.3, P Area Ash Basin Remedial Action Project

Date	Title/Description
12/24/2009	CD 2/3 Approval
3/2/2010	Award Ash Basin Remediation Contract
6/10/2010	Complete Vegetation Removal
7/9/2011	Achieve Mechanical Completion
9/30/2011	Approve CD-4

Table 5d. Milestones for SR-0030.R1.4, R Reactor Decommissioning Project

Date	Title/Description
12/24/2009	CD 2/3 Approval
8/10/2010	Complete disassembly basin grouting for 105-R
7/28/2011	Complete installation of disassembly basin cap for 105-R
9/6/2011	Complete grouting and stack removal for 105-R
9/22/2011	Complete sealing building and modify roofs for 105-R
12/10/2011	Achieve mechanical completion for 105R
1/31/2012	Approve CD-4

Table 5e. Milestones for SR-0030.R1.5, R Area Ash Basin Remedial Action Project

Date	Title/Description
12/24/2009	CD 2/3 Approval
3/15/2010	Complete Vegetation Removal
3/16/2010	Award R Ash Basin Remediation Contract
7/27/2011	Achieve Mechanical Completion
9/30/2011	Approve CD-4

NEPA Compliance

The scope of work is being undertaken primarily pursuant to CERCLA; separate NEPA review is not required. In addition, a portion of the work is addressed by existing categorical exclusion determinations. The DOE-SR NEPA Compliance Officer will monitor implementation and, as necessary, determine whether additional NEPA review is required.

Project Management

This Recovery Act Project underwent an external independent review (EIR) by DOE's Office of Construction Engineering and Management (OECM). The initial (Phase I) on-site review was conducted during the week of August 10, 2009. The EIR report was issued on September 14, 2009. On October 8, 2009, the EIR team begins Phase II of the EIR. On December 17, 2009, OECM closes CAP, issues final EIR report, and validates the performance baseline.

Table 6. Delivery Schedule for Capital Asset Projects

Program/OECM Milestone	Delivery (End) Date	Comments
Develop capital asset projects Integrated Project List	10/8/2009 (A)	This project is comprised of four capital asset projects, capital asset activities with a cost estimate of less than $10 million (i.e., general plant projects (GPP)) and EM operations activities.
Develop Parametric Performance Baseline (Individual Projects)	7/7/2009 (A) and 10/6/2009 (A)	A performance baseline was delivered in July 2009 and subjected to an EIR. In conjunction with the EIR CAP, a new baseline was developed and submitted.
If < $100 M Perform IPR, ≥ $100 M Perform EIR (Individual Projects)	07/27/2009 (A) and 12/14/2009 (A)	Phase I EIR performed during week of 8/10//2009 and Phase II EIR stated on 10/8/2009.
Approve Performance Baseline	12/17/2009 (A)	OECM validated performance baseline.
Approve Start of Construction	12/24/2009 (A)	GPP and EM operations activities continued. No additional approvals were required. For the five capital asset projects, CD-2/3 was approved 12/24/2009.

Table 6. Delivery Schedule for Capital Asset Projects

Program/OECM Milestone	Delivery (End) Date	Comments
Approve Project Completion	9/30/2011 for GPP, EM operations, and the two ash basin remedial action projects. 1/31/2012 for the two reactor decommissioning projects. 9/30/2012 for C Area units	

IV PERFORMANCE

Performance Measures

The Project will regularly report on all aspects of project cost including indirect cost rate, schedule, performance, results and impacts. Reporting of the estimation of jobs created and retained will also be made.

Within ninety days after the effective date of the contract modification, the contractor shall propose to the Contracting Officer a Contract Performance Baseline, including a supplemental Performance Evaluation and Measurement Plan to accommodate the Recovery Act Project scope.

The period of performance for the Recovery Act work begins April 8, 2009 through September 30, 2012.

The following reporting procedure will apply to the submission of monthly cost reports for Recovery Act work specified in the accelerated work scope.

- DOE will conduct a review of the contractor's proposed Earned Value Management System (EVMS) for compliance with ANSI/EIA-748 according pursuant to DOE Order 413.3A. The contractor's EVMS was certified by OECM on February 26, 2010.
- The contractor shall certify in each monthly report that the costs included in the report for Recovery Act work were incurred only to accomplish the Recovery Act work in accordance with the accelerated work scope.

Table 7. Overall ARRA Project Performance Measure and Targets

Recovery Act Project Identification Code	Savannah River Site D&D P&R Recovery Act Project 2002150
Linkage To S-1 Priorities	National Security and Legacy - Accelerate decommissioning of nuclear facilities and contaminated areas in P and R Areas of SRS
Linkage to Current Program Goal (if applicable)	EM Goals – Environmental responsibility to protect the environment; and to D&D contaminated facilities no longer needed to carry on current EM mission
Two-Year Outcome-Oriented Performance Measure	By the end of fiscal year 2011, reduce the SRS operational footprint by 25% (approximately 78 square miles)
First Year Performance Target (2009)	Initiate procurement activities to decommission P reactor facilities
Q3 - Project-Level Quarterly Performance Milestone(s)	Issue Request for Proposal (RFP) for the D&D contract for 105-R Reactor building
Q4 - Project-Level Quarterly Performance Milestone(s)	Definitize PEMP/Award Fee Plan via formal contract modification
Second Year Performance Target (2010)	Complete grouting of P reactor ancillary facilities and begin grouting main P reactor facility
Q1- Project-Level Quarterly Performance Milestone(s)	Issue Early Action Record of Decision for C, K, L and R Reactor Complexes
Q2 - Project-Level Quarterly Performance Milestone(s)	- Initiate procurement activities for P and R Area Operable Unit - Achieve mechanical completion for P and R Area Cask Car Railroad Track remediation
Q3 - Project-Level Quarterly Performance Milestone(s)	- Complete vegetation removal at P and R Ash Basins - Start up of 105-P disassembly basin water evaporators
Q4 - Project-Level Quarterly Performance Milestone(s)	- Complete grouting 105-R disassembly basin - Complete P and R Reactor Gantry crane removal
Third Year Performance Target (2011)	Complete various soil/groundwater remediation.

Table 7. Overall ARRA Project Performance Measure and Targets

Recovery Act Project Identification Code	Savannah River Site D&D P&R Recovery Act Project 2002150
Q1- Project Level Quarterly Performance Milestone(s)	Construction complete PSA-3A Injection
Q2- Project Level Quarterly Performance Milestone(s)	Complete RAOU Process Sewer Line Remediation
Q3 - Project-Level Quarterly Performance Milestone(s)	- Complete disassembly basin grouting 105-P - Complete in situ decommissioning grouting and stack removal at 105-P - Complete installation of disassembly basin cap at 105-R
Q4 - Project-Level Quarterly Performance Milestone(s)	- Mechanical Complete of ash basins - CD 4 Approval P/R Ash Basins - Complete sealing building and modify roof for 105-P and 105-R - Complete in situ decommissioning and stack removal for 105-R - Complete demolition and removal of PAR pond facilities
Fourth Year Performance Target (2012)	Complete closeout of reactor decommissioning projects.
Q1 - Project-Level Quarterly Performance Milestone(s)	- Complete closeout of reactor decommissioning projects - Achieve mechanical complete for P and R Reactors
Q2 - Project Level Quarterly Performance Milestone(s)	CD 4 Approval for P and R Decommissioning Projects
Q4 - Project Level Quarterly Performance Milestone(s)	- Achieve mechanical completion of C Area groundwater remediation - Achieve mechanical completion of CAOU waste units remediation - Achieve mechanical completion of C Discharge Canal remediation

National Strategic Benefits

Table 8. National Strategic Benefits

1. Carbon Emission Reductions: Estimated 5-year undiscounted CO_2 reduction (in metric tonnes of CO_2 equivalent) are [fill in the blank]
2. Oil Consumption Reductions: Estimated 5-year reduction in undiscounted oil consumption (in barrels of oil equivalent) is [fill in the blank]

V MANAGEMENT

Secretarial-level Items

Table 9 depicts the linkages between short term (5 year) qualitative and quantitative benefit estimates and the Secretarial-level Priorities through September 2014

Table 9. Secretary's Priorities

Secretary's Priorities	Project Impacts (Qualitative)	Project Impacts (Quantitative)
Science and Discovery	NA	NA
Clean, Secure Energy	NA	NA
Economic Prosperity	The completion of EM cleanup missions on major industrial areas of the SRS allow for beneficial reuse.	The total EM footprint reduction is about 230 square miles which represents 75% of the 310 contiguous square miles of SRS.
National Security and Legacy	NA	NA
Climate Change	NA	NA

Collaboration and Coordination

Upon the completion of this project, there will be expertise within DOE on In-Situ Decommissioning (ISD) of reactors. This is an acceptable alternative to complete demolition of the reactor buildings. This knowledge and expertise can also be used on a global scale to assist other countries dealing with facilities that provide no further value and therefore reduce the risks to the world.

The DOE Nevada Test Site, Energy Solutions in Utah, and other commercially-operated waste treatment/ storage/disposal facilities will be needed to support treatment and disposal of waste generated during the Recovery Act Project. Coordination with these interfaces already exists however will be enhanced throughout this project. Maintaining continuity of available disposal capacity for Class A and Greater-Than Class A Mixed Low Level Radioactive Waste is important to the project.

The Savannah River National Laboratory will continue to provide technical and research core competency capabilities for DOE Order 435.1 compliance.

The DOE-SR Office of Acquisition Management will continue to work closely with DOE-EM and DOE -Office of Management (MA) to insure timely business clearance approval for procurement actions that exceed local authority.

DOE-SR will work with DOE-EM and other headquarters organization to revise or provide clarification to DOE Order 5400.5 (DOE Rad Release Criteria) to facilitate material disposition.

Training programs and/or courses may be set up in the local universities and/or technical colleges for identified positions which may require additional training outside of standard site training courses.

There are many external interfaces associated with the normal operations at SRS. These include:

- **Regulatory** - SRS Citizens Advisory Board, Environmental Protection Agency, South Carolina Department of Health and Environmental Control, Department of Transportation, Nuclear Regulatory Commission, and Defense Nuclear Facilities Safety Board
- **Community** - SRS Citizens Advisory Board, Central Savannah River Area Counties, Surrounding States, Nevada, New Mexico, and Utah
- **Industry** - Environmental Engineering/Remediation, Waste Management, Construction, Cement, Container, Transportation, Housing, Utilities, etc.
- **Other** - Other SRS Contractors, Labor Unions, Parent Companies, Local Universities/Colleges

Federal Infrastructure Investments

This Recovery Act Project addresses the Cold War legacy by remediating chemically and radioactively contaminated soils and water, demolishing and removing surplus non-contaminated and non-nuclear facilities, decommissioning surplus nuclear facilities, and dispositioning waste materials, thereby reducing agency's environmental impact and liability.

This Recovery Act Project provides for the repair of railroad tracks and roadways as needed to maintain their functionality and safety while supporting work of this project.

Line Management

DOE-SR intends to use existing EM site systems and practices to effectively monitor and report on the Recovery Act Project activities, including:

- Fully implement all Recovery Act transparency and reporting requirements through modifications to the contract that will fund this Recovery Act Project.
- Continue applying project management principles to Recovery Act Project execution, including reviewing and validating EM project cost and schedule

baselines consistent with DOE Order 413.3 and identifying project risks and strategies for managing them.

- Continue use of industry standard Earned Value Management System (EVMS) to compare actual project scope, cost, and schedule performance against planned performance as depicted in the baseline.
- Continue monitoring of the contractors' EVMS reports to ensure the Recovery Act Project is on track and, if not or if trends are in a negative direction, to develop and implement corrective actions.
- Hold monthly management reviews to provide updates on the Recovery Act Project to EM's senior-most executives.
- Secure support service contractors to provide limited augmentation of federal procurement, budget and finance, project controls, and technical oversight capabilities for the Recovery Act Project.
- Assign appropriately qualified staff to the Recovery Act Project to provide technical and programmatic oversight of the contractors performing the work and be the day-to-day governmental interface and manager for the project.
- Use an Integrated Project Team (IPT) of Federal and contractor staff with project knowledge and subject matter expertise essential to the successful planning and execution of the project – including safety, risk management, engineering, quality assurance, contracts administration, and project controls.
- Develop detailed risk management plans for the Recovery Act Project to identify and mitigate risks, and assign roles and responsibilities for managing the risks.

Needs from Staff Offices

DOE-SR has not identified resource needs from other DOE Staff Offices.

Human Capital

DOE-SR intends to use support service contractors to provide limited augmentation to federal staff in the areas of procurement, budget and finance, project controls, and technical oversight. DOE-SR is nearly staffed to the DOE Environmental Management program's "Best-In-Class" federal staffing levels for both acquisition and project controls. DOE-SR has hired hiring additional Facility Representatives to provide technical oversight of contractor activities. DOE-SR is in the process of hiring additional contract specialists to support increased oversight of contractor procurement activities, including the conduct of post-award reviews and audits. Priority execution of security clearance requests may be required.

Table 10. Information on Hiring Under the Recovery Act

# & Type of Positions (Title, Series and Grade)	Location (HQ or Field – w/location)	Federal or Contractor	Timeframe (1-6mos; 6+mos; other; specify date needed if possible)
A wide variety of skills, trades and professions. The initial goal of SRRAP is 3,000 jobs.	SRS	Contractor	April 2009 through January 2012

Table 11. Procurement Plans

Activity	Type	New/ Exist (N/E)	Changes (E), Needs (N)	Status	Expected Complete	Issues (Y/N)
Savannah River Nuclear Solutions Management and Operating Contract	DOE Prime Contract	E	(E) Funding Modification	Modification pending receipt of funds	Modification complete w/in 10 days after receipt of funds	N
P & R Ash Basins Vegetation Removal	SRNS Subcontract	N	NA	Awarded	6/2010	N
P & R Ash Basins Remediation	SRNS Subcontract	N	NA	Request for Proposal Being Developed	6/2011	N
P& R Reactor Gantry Crane Removal	SRNS Subcontract	N	NA	Awarded	8/2010	N
105-P & 105-R Grouting and Stack Removal	SRNS Subcontract	N	NA	Bids under Evaluation	12/2011	N
P & R Cask Car Railroad Track Waste Units Remediation	SRNS Subcontract	N	NA	Awarded	3/2010	N
105-P & 105-R Roof Modification and Building Sealing	SRNS Subcontract	N	NA	Request for Proposal Issued	12/2011	N
P Area Concrete Batch Plant Installation and Operation	SRNS Subcontract	N	NA	Awarded	12/2011	N
C Area Characterization	SRNS Contract	N	NA	Request for Proposal Being Developed	9/2011	N
C Area Remediation	SRNS Contract	N	NA	Request for Proposal Being Developed	9/2012	N